

Remarks: See §9.3.2, page 351 till 363

Answers:

$$N^{(BC)} = -100 \text{ kN}$$

Remarks:

Equilibrium joint A: $N^{(AB)} = +60 \text{ kN}$; then equilibrium of joint B.

Alternative

Calculate support reactions. From the horizontal force equilibrium of D it follows that the outer diagonal member a zero-force member is. Also all other dotted member in the figure are zero-force members

$N^{(DB)} = +80 \text{ kN}$. Then the equilibrium of joint B.

For recognizing zero-force members: see §9.3.3, page 363 till 369, especially example 2 on page 367

